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SEQUENCE LISTING

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Zhang, Min-Ying
Norris, James

<120> Use of Human Homolog Of A Nuclear Migration Gene For Treatment And Diagnosis Of Cancer

<130> PSU-0016

<140> 09/623,568

<141> 2001-03-23

<150> 60/076,885

<151> 1998-03-05

<150> PCT US99/04996

<151> 1999-03-05

<160> 16

<170> PatentIn version 3.1

<210> 1

<211> 14

<212> PRT

<213> artificial Sequence

<220>

<223> Peptide

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<223> Peptide

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Asn Gly Ser Leu Asp Ser Pro Gly Lys Gln Asp Thr Glu Glu Asp
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<213> artificial Sequence

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<223> Oligonucleotide

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 caatgaagtg aaggtggagg agag 24

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 accaactaag aacggccatg 20

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 agcaacatgc cgtcgaaccg ctcc 24

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<213> artificial Sequence

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ggagcgggttc gacggcatgt tgct 24

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agcttgtagaa caccttcttc agcttccttc gacgcaaac agactttttc attggaggag 180
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atcatgaggg ccagctcaag aacggcagcc ttgactcccc agggaagcag gatactgagg 480
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agatcaataa gatggagtgg tggagccgct tgggtgccag tgaccctgag atcaacacca 840
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aaaaaaaaa aaaaaaaaaa a 1281

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<212> PRT
<213> Homo sapiens

<400> 12

Met Gly Gly Glu Gln Glu Glu Glu Arg Phe Asp Gly Met Leu Leu Ala
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Met Ala Gln Gln His Glu Gly Gly Val Gln Glu Leu Val Asn Thr Phe
20 25 30

Phe Ser Phe Leu Arg Arg Lys Thr Asp Phe Phe Ile Gly Gly Glu Glu
35 40 45

Gly Met Ala Glu Lys Leu Ile Thr Gln Thr Phe Ser His His Asn Gln
50 55 60

Leu Ala Gln Lys Thr Arg Arg Glu Lys Arg Ala Arg Gln Glu Ala Glu
65 70 75 80

Arg Arg Glu Lys Ala Glu Arg Ala Ala Arg Leu Ala Lys Glu Ala Lys
85 90 95

Ser Glu Thr Ser Gly Pro Gln Ile Lys Glu Leu Thr Asp Glu Glu Ala
100 105 110

Glu Arg Leu Gln Leu Glu Ile Asp Gln Lys Lys Asp Ala Glu Asn His
115 120 125

Glu Ala Gln Leu Lys Asn Gly Ser Leu Asp Ser Pro Gly Lys Gln Asp
130 135 140

Thr Glu Glu Asp Glu Glu Glu Asp Glu Lys Asp Lys Gly Lys Leu Lys
145 150 155 160

Pro Asn Leu Gly Asn Gly Ala Asp Leu Pro Asn Tyr Arg Trp Thr Gln
165 170 175

Thr Leu Ser Glu Leu Asp Leu Ala Val Pro Phe Cys Val Asn Phe Arg
180 185 190

Leu Lys Gly Lys Asp Val Val Val Asp Ile Gln Arg Arg His Leu Arg
195 200 205

Val Gly Leu Lys Gly Gln Pro Ala Ile Ile Asp Gly Glu Leu Tyr Asn
210 215 220

Glu Val Lys Val Glu Glu Ser Ser Trp Leu Ile Glu Asp Gly Lys Val
225 230 235 240

Val Thr Val His Leu Glu Lys Ile Asn Lys Met Glu Trp Trp Ser Arg
245 250 255

Leu Val Ser Ser Asp Pro Glu Ile Asn Thr Lys Lys Ile Asn Pro Glu

260

265

270

Asn Ser Lys Leu Ser Asp Leu Asp Ser Glu Thr Glu Ser Met Val Glu
275 280 285

Lys Met Met Tyr Asp Gln Arg Gln Lys Ser Met Gly Leu Pro Thr Ser
290 295 300

Asp Glu Gln Lys Lys Gln Glu Ile Leu Lys Lys Phe Met Asp Gln His
305 310 315 320

Pro Glu Met Asp Phe Ser Lys Ala Lys Phe Asn
325 330

<210> 13
<211> 332
<212> PRT
<213> Rattus rattus

<400> 13

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20 25 30

Phe Ser Phe Leu Arg Arg Lys Thr Asp Phe Phe Ile Gly Gly Glu Glu
35 40 45

Gly Met Ala Glu Lys Leu Ile Thr Gln Thr Phe Asn His His Asn Gln
50 55 60

Leu Ala Gln Lys Ala Arg Arg Glu Lys Arg Ala Arg Gln Leu Thr Glu
65 70 75 80

Arg Arg Glu Lys Ala Glu Arg Ala Ala Arg Leu Ala Lys Glu Ala Lys
85 90 95

Ala Glu Thr Pro Gly Pro Gln Ile Lys Glu Leu Thr Asp Leu Lys Ala
100 105 110

Glu Arg Leu Gln Leu Glu Ile Asp Gln Lys Lys Asp Ala Glu Asn His
115 120 125

Glu Val Gln Leu Lys Asn Gly Ser Leu Asp Ser Pro Gly Lys Gln Asp
130 135 140

Ala Leu Leu Glu Glu Asp Glu Glu Asp Glu Lys Asp Lys Gly Lys Leu
145 150 155 160

Lys Pro Asn Leu Gly Asn Gly Ala Asp Leu Pro Asn Tyr Arg Trp Thr
165 170 175

Gln Thr Leu Ser Phe Leu Asp Leu Ala Val Pro Phe Arg Val Ser Phe
180 185 190

Arg Leu Lys Gly Lys Gln Val Val Val Asp Ile Gln Arg Arg His Leu
195 200 205

Arg Val Gly Leu Lys Gly Gln Ala Pro Val Ile Asp Gly Glu Leu Tyr
210 215 220

Asn Glu Val Lys Val Glu Glu Ser Ser Trp Leu Ile Glu Asp Gly Lys
225 230 235 240

Val Val Thr Val His Leu Glu Lys Ile Asn Lys Met Glu Trp Trp Asn
245 250 255

Arg Leu Val Thr Ser Asp Pro Glu Ile Asn Thr Lys Lys Ile Asn Pro
260 265 270

Glu Asn Ser Lys Leu Ser Asp Leu Asp Ser Glu Thr Arg Ser Met Val
275 280 285

Glu Lys Met Met Tyr Asp Gln Arg Gln Lys Ser Met Gly Leu Pro Thr
290 295 300

Ser Asp Glu Gln Lys Lys Gln Glu Ile Leu Lys Lys Phe Met Asp Gln
305 310 315 320

His Pro Glu Met Asp Phe Ser Lys Ala Lys Phe Asn
325 330

<210> 14
<211> 202
<212> PRT
<213> Aspergillus nidulans

<400> 14

Met Ser Glu Gln Glu Pro Ser Ser Ala Asp Leu Ala Ala Arg Glu Ala
1 5 10 15

Glu Glu Lys Gln Arg Lys Ala Ala Glu Glu Ala Glu Gln Ala Thr Leu
20 25 30

Pro Tyr Lys Asn Thr Gln Thr Ile Arg Asp Val Asp Val Phe Thr Thr
35 40 45

Ile Pro Val Ser Ala Asn Leu Lys Gly Arg Asp Leu Asp Val Val Leu
50 55 60

Lys Lys Asp Ser Ile Lys Val Lys Val Lys Gly Glu Asn Gly Glu Val
65 70 75 80

Phe Ile Asp Gly Gln Phe Pro His Pro Ile Lys Pro Ser Glu Ser Ser
85 90 95

Trp Thr Leu Glu Thr Thr Ser Lys Pro Pro Phe Thr Gly Lys Glu Val
100 105 110

Ser Ile His Leu Asp Lys Val Asn Gln Met Glu Trp Trp Ala Met Val
115 120 125

Val Thr Thr Ala Pro Lys Ile Asp Val Ser Lys Ile Thr Phe Glu Asn
130 135 140

Ser Ser Leu Ser Asp Leu Asp Gly Glu Thr Arg Ala Met Val Glu Lys
145 150 155 160

Met Met Tyr Asp Gln Arg Gln Lys Glu Met Gly Ala Pro Thr Ser Asp
165 170 175

Glu Gln Arg Lys Met Asp Ile Leu Lys Lys Phe Gln Lys Glu His Pro
180 185 190

Glu Met Asp Phe Ser Asn Ala Lys Ile Gly
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<210> 15
<211> 93
<212> PRT
<213> artificial Sequence

<220>
<223> Consensus Sequence

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Ser Phe Asp Glu Lys Glu Ala Leu Pro Tyr Asn Thr Gln Thr Asp Val
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Leu Lys Gly Asp Val Val Lys Ile Asp Gly Lys Glu Ser Ser Trp Glu
20 25 30

Gly Lys Val His Leu Lys Asn Met Glu Trp Trp Val Pro Ile Lys Ile
35 40 45

Pro Glu Asn Ser Leu Ser Asp Leu Asp Glu Thr Arg Met Tyr Glu Lys
50 55 60

Met Met Tyr Asp Gln Arg Gln Lys Met Gly Pro Thr Ser Asp Glu Gln
65 70 75 80

Lys Ile Leu Lys Lys Phe His Phe Glu Met Asp Phe Ser
85 90

<210> 16

<211> 12
<212> PRT
<213> Homo sapiens

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<223> X=Any Amino Acid

<220>
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<222> (11)..(11)
<223> X=Any Amino Acid

<400> 16

Met Val Glu Lys Met Met Tyr Asp Xaa Arg Xaa Lys
1 5 10